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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,444	12/03/2003	Kuldeep Karnawat	MSFT-2556 / 303212.1	7106

41505 7590 04/04/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891	EXAMINER FERNANDEZ RIVAS, OMAR F

ART UNIT	PAPER NUMBER
2129	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/727,444	KARNAWAT ET AL.
	Examiner	Art Unit
	Omar F. Fernández Rivas	2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 February 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,5-12 and 26-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,5-12 and 26-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>10/1/2004</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail. Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This Office Action is in response to an RCE filed by the Applicant filed on

February 8, 2007.

2.   The Office Actions of May 11, 2006 and November 1, 2006 are incorporated into

this Non-Final Office Action by reference.

Status of Claims

3.   Claims 1 and 26 have been amended. Claims 1-3, 5-12 and 26-29 are pending

on this application.

Claim Rejections - 35 USC § 112

4.   In light of the amendment made on claim 26, the rejection under 35 USC 112 of

the Office Action of November 1, 2006 has been withdrawn.

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The claim recites in lines 9-10, 11, 14 and 16 **said search**.

There is insufficient antecedent basis for this limitation in the claim. The Examiner

notes that the claim recited in previous lines a **search session**.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 9-12, 26-27 and 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Biebesheimer et al. in view of Fries et al. (US Patent Application

#2002/0152190, referred to as **Biebesheimer**; US Patent # 6,751,606, referred to as

Fries).

Claim 1

Biebesheimer teaches a method with regard to a user performing a search

search during a single search session at a search engine by way of a search

mechanism (**Biebesheimer**: abstract, L1-23; Examiner's Note (EN): a query is a

search. A current user query is a single search session), said method comprising:

monitoring the search mechanism for user behavior data regarding interactions between

the user and the search mechanism during the search session thereat (**Biebesheimer**:

abstract; page 1, par 2, L1-7; pages 3-4, par 33, L14-30; page 6, pars 49-50; page 8,

pars 66-67; EN: monitoring user interactions is monitoring user behavior data. As the

user works with the system (a search session), the user's interactions (behavior data)

are captured and stored. Moreover, if the system receives instructions from the user

(behavior data), then the system is being monitored for the user's input), the user

behavior data comprising data concerning a plurality of events, each event

corresponding to an action of the user at the search mechanism during the search

session (**Biebesheimer**: abstract; page 1, par 2, L1-7; page 2, pars 18 and 19; pages 4-

5, pars 41 and 42; page 6, pars 49-50; EN: capturing the interactions of the user as the

user works with the system. Moreover, changing parameters and values of the search

is an action of the user during the search); monitoring said search mechanism for

response data regarding said search, the response data comprising a results list

(**Biebesheimer**: page 2, par 18; page 9, par 73; EN: the response set is a results list);

determining context data describing said search, the context data being derived from

the user behavior data and from the response data and representing an overall context

of the search conducted during the search session (**Biebesheimer**: page 2, par 18;

page 3, par 30; page 4, par 35; page 5, par 41, L7-17; EN: the user's context vector of

the current search); and performing a context-dependent evaluation of the results of

the search engine acquired during the search session, the evaluation based at least in

part on the determined context data and the determined user feedback data acquired

during the single search session (**Biebesheimer**: abstract; page 2, pars 18-20; page 3,

par 29, L13-26; page 4, pars 34-37; page 5, pars. 42-44; page 6, pars 49-50; EN:

increasing the relevance of the search results using the query input and the context

vector).

Biebesheimer does not teach determining user feedback data describing said

search, the user feedback data including implicit user feedback derived from the user

behavior data and explicit user feedback derived from at least one question to the user

regarding the search and the response to the question.

Fries teaches determining user feedback data describing said search, the user

feedback data including implicit user feedback derived from the user behavior data and

explicit user feedback derived from at least one question to the user regarding the

search and the response to the question (**Fries**: abstract: L9-16; C5, L52-65; C9, L5-20;

C23, L29-42; Figs 4A, 4B, 5, 6, 18 and 19).

It would have been obvious to one of ordinary skill in the arts at the time of the

applicant's invention to modify the teachings of Biebesheimer by incorporating

determining user feedback data describing said search, the user feedback data

including implicit user feedback derived from the user behavior data and explicit user

feedback derived from at least one question to the user regarding the search and the

response to the question as taught by Fries for the purpose of allowing the system to

modify its response based on the interactions that the user has made with the system

so that future responses are more fit to the user's needs or preferences.

Claim 2

Biebesheimer teaches said search mechanism is a web browser (**Biebesheimer**:

page 3, par 33, L14-17).

Claim 3

Biebesheimer teaches each action from the user at the search mechanism is

selected from among entering a search query; said user navigation to a new page using

a hyperlink; said user navigation to a new page using a history list; said user navigation

to a new page using an address bar; said user navigation to a new page using a

favorites list; user scrolling behavior; user document printing behavior; said user adding

a document to said favorites list; said user switching focus to a different application; said

user switching focus back from a different application; and said user closing a window

(**Biebesheimer**: abstract, L1-12; page 3, par 30; page 8, par 67; Fig. 1; EN: receiving a

user query).

Claim 9

Biebesheimer teaches said context data describing said search comprises user

behavior data (**Biebesheimer**: abstract, L4-12; page 4, par 35, L1-9; page 5, par 41,

L7-17; page 12, claim 9; user interaction data is user behavior data).

Claim 10

Biebesheimer teaches said user feedback data comprises explicit user feedback

(**Biebesheimer**: page 5, par 41, L7-17; page 6, par 50; page 12, claim 7; EN: present

user interaction data is explicit feedback).

Claim 11

Biebesheimer teaches said user feedback data comprises implicit user feedback

based on said user behavior data (**Biebesheimer**: page 2, par 19, L3-12; page 12,

claims 7 and 12; EN: history of user interaction feedback is implicit user feedback).

Claim 12

Biebesheimer teaches a computer-readable medium having computer-

executable instructions to perform the method of claim 1 (**Biebesheimer**: page 13,

claim 20).

Claim 26

Biebesheimer teaches the search comprises a number of queries from the user

to the search engine (**Biebesheimer**: abstract, L1-12; page 3, par 30; page 8, par 67;

Fig. 1; EN: receiving a user query), each query being followed by a response from the

search engine (**Biebesheimer**: page 2, par 18; page 9, par 73; EN: presenting a

response set), the method comprising determining context data that describes each

query of the search (**Biebesheimer**: page 2, par 18; page 3, pars 30 and 32), including

timing and how the user reacted to the corresponding response (**Biebesheimer**: page

3, par 30; pages 4-5, pars 41-42; EN: the selections made by the user on the response

set), and performing the context-dependent evaluation of the results of the search

engine based on such context data that allows corresponding user feedback data to be

analyzed in a context of the search that is performed during the search session

(**Biebesheimer**: abstract, L17-26; page 2, pars 19-20; page 3, par 29, L13-24; page 4,

par 37; page 5, pars. 42-44; the system is trained based on the feedback from the user.

The performance of the indexing function is evaluated with the user feedback).

Claim 27

Biebesheimer teaches determining user feedback data that describes the search

(**Biebesheimer**: abstract; page 2, pars 18-19), the user feedback data including implicit

user feedback derived from user behavior including browsing, scrolling, and clicking

behavior (**Biebesheimer**: abstract, L17-26; page 2, par 19, L15-20; page 3, par 32; EN:

past user interactions are implicit feedback).

Claim 29

Biebesheimer teaches determining user feedback data that describes the search,

the user feedback data including explicit user feedback by way of a dialog box opened

at the search mechanism of the user (**Biebesheimer**: page 7, par 63, L6-12; EN:

entering text via a web browser is done by using dialog boxes).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Biebesheimer and Fries as set forth above in view of http://Whatis.techtarget.com

(State Machine; referred to as **Whatis**).

Claims 5 and 17

Biebesheimer and Fries do not teach tracking, using a state machine comprising

at least two states describing progress through said search, which of said states said

search is in.

Whatis teaches tracking, using a state machine comprising at least two states

describing progress through said search, which of said states said search is in (**Whatis**:

pages 1 and 2; EN: a state machine describes the transitions (progress) from one state

to another in a system based on the inputs received and outputs produced. If a state

machine is used to implement a search system, the state machine will describe in which

state the search is in).

It would have been obvious to one of ordinary skill in the arts at the time of the

applicant's invention to modify the combined teachings of Biebesheimer and Fries by

using a state machine to describe the state of the search as taught by Whatis for the

purpose of having a mapping between the state of the search and the inputs received

and the outputs produced by the system.

Claims 6 and 18

Biebesheimer teaches said context data describing said search comprises state

data regarding which of said states were tracked during said search (**Biebesheimer**:

abstract, L4-12; page 3, par 29, L13-24; EN: the inputs given by the user will drive the

system to the next state).

Claims 7 and 19

Biebesheimer teaches least one transition between said states in said state

machines is at least partially dependent on explicit user feedback (**Biebesheimer**:

abstract, L4-12; page 3, par 30, L1-17; page 12, column 1, L3-8, page 12, claim 7;

present user interactions or queries are explicit user feedback that will define a

transition in the system).

Claims 8 and 20

Biebesheimer teaches said context data describing said search comprises said

explicit user feedback (**Biebesheimer**: abstract, L4-12; page 5, par 41, L7-17; page 12,

column 1, L3-8; EN: the context is associated with the query (explicit feedback)).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Biebesheimer in view of Fries as set forth above in view of Hosken (US Patent

#6,438,579, referred to as **Hosken**).

Claim 28

Biebesheimer teaches determining user feedback data that describes the search,

the user feedback data including implicit user feedback (**Biebesheimer**: page 2, par 19,

L3-12; page 12, claims 7 and 12) including: user behavior relating to the user ignoring a

result item of a result list (**Biebesheimer**: page 2, par 19, L15-20; EN: if retrieving an

item is viewed as successful, ignoring the items will be a failure).

Biebesheimer and Fries do not teach the implicit user feedback including user

behavior while visiting a result list page, including time spent thereat; user behavior

while exploring a hyperlink on the result list page, including time spent thereat; and user

behavior while visiting a result item page, including the time spent thereat.

Hosken teaches the implicit user feedback including user behavior while visiting

a result list page, including time spent thereat (**Hosken**: C3, L21-30; C5, L42-62); user

behavior while exploring a hyperlink on the result list page, including time spent thereat

(**Hosken**:; C3, L21-30; C4, L29-43; C5, L42-62; if the system uses a web browser, it

must use hyperlinks to enable a user to select an item from the list); and user behavior

while visiting a result item page, including the time spent thereat (**Hosken**:; C3, L21-30;

C4, L29-43; C5, L42-62).

It would have been obvious to one of ordinary skill in the arts at the time of the

applicant's invention to modify the combined teachings of Biebesheimer and Fries by

incorporating teach the implicit user feedback including user behavior while visiting a

result list page, including time spent thereat; user behavior while exploring a hyperlink

on the result list page, including time spent thereat; and user behavior while visiting a

result item page, including the time spent thereat as taught by Hosken for the purpose

of measuring the interest of the user in a particular item so that the system can modify

its response to present the user with similar items in future searches.

Response to Applicant's arguments

9.   The Applicant's arguments have been fully considered but are not persuasive.

In reference to Applicant's argument:

Applicant concludes that Biebesheimer uses historical interaction data from past
sessions and users in its process to deliver a results set that has the highest possible

user relevance. This contrasts with amended Claim 1 which performs a context-dependent evaluation of the results of a search engine acquired during the search session, the evaluation based at least in part on the determined context data and the determined user feedback data acquired during the single search session. Thus, whereas Biebesheimer relies on past user interaction records to produce a high relevance result set for a query, Claim 1 produces an evaluation where only the data acquired during the particular search session is used. Thus, no prior data from user interactions is used in amended Claim 1.

Examiner's response:

The claims and only the claims form the metes and bounds of the invention. The

Examiner has full latitude to interpret each claim in the broadest reasonable sense

The system of Biebesheinmer does use prior data to produce the result set.

However, in order to produce this result set, the interactions of the user in the current

query along with the context vector of the current query are used to provide this result

set. Therefore, the evaluation is performed based, at least in part, on the user

interactions and the context of the current query (the particular search session).

In reference to Applicant's arguments:

Thus, Applicant concludes that Fries, fails to teach the amended Claim 1 element of performing a context-dependent evaluation of the results of the search engine acquired during the search session, the evaluation based at least in part on the determined context data and the determined user feedback data acquired during the single search session.

Examiner's response:

As set forth above, these limitations are taught by Biebesheimer. The Fries

reference was not used to reject these limitations.

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Biebesheimer US Patent #6,853,998

Delgado et al US Patent #6,801,909

11.   Claims 1-3, 5-12 and 26-29 are rejected.

Correspondence Information

12.   Any inquires concerning this communication or earlier communications from the

examiner should be directed to Omar F. Fernández Rivas, who may be reached

Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at

(571) 272-2589 or email omar.fernandezrivas@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor,

David Vincent, may be reached at (571) 272-3080.

Hand-delivered responses should be delivered to the Receptionist @ (Customer

Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located

on the first floor of the south side of the Randolph Building.

Omar F. Fernández Rivas
Patent Examiner
Artificial Intelligence Art Unit 2129
United States Department of Commerce
Patent & Trademark Office

JOSEPH P HIRL
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

Thursday, March 29, 2007